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ABSTRACT

Self-actualization, which involves the ultimate development of one's abilities regardless of external influences, is the basis for many personality theories. To assess the relationship between biological sex, sex role, and self-actualization, the Bem Sex Role Inventory (BSRI) and the Personal Orientation Inventory (POI) were administered to 129 male and 264 female college students. Subjects were asked to answer the POI for present and future. Results seemed to contradict an androgynous-positive model of fully functioning human responses suggested by Bem (1974) and Maslow (1954). However, there was considerable support for the masculine-positive model especially for present POI scores. There was a linear relationship with POI scores, using Bem's five sex role categories, from masculine (high POI scores) to feminine (low POI scores). In addition, future POI scores were significantly higher than present scores in the androgynous, near feminine, and feminine groups. Finally, females scored higher on the POI than males. Regression analyses of biological sex and BSRI masculine and feminine raw scores on the POI showed support for a masculine-positive, female-positive, feminine-negative model (in that order) for present POI scores and for a female-positive, feminine-negative, masculine-positive model (in that order) for POI future scores. It was concluded that masculine sex role, not androgyny, is related to self-actualization, and that females may be going to college for more self-actualizing reasons than males. (Author/JAC)

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Biological Sex, Sex-Role, and Self-Actualization of College Students

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Running head: Biological Sex, Sex-Role, and Self-Actualization

Abstract

This study assessed the relationships between biological sex, sex-role, and self-actualization. The Bem Sex Role Inventory (BSRI) and Personal Orientation Inventory (POI) were administered to 129 male and 264 female college students with subjects being asked to answer the POI for present and future. There was a linear relationship with POI scores, using Bem's five Sex-role categories, from Masculine (high POI scores) to Feminine (low POI scores). In addition, the future POI scores were significantly higher than the present scores in the androgynous, near feminine, and feminine groups. Finally, females scored higher on the POI than males. Regression analyses of biological sex and BSRI masculine and feminine raw scores on the POI showed support for a masculine-positive, female-positive, feminine-negative model (in that order) for present POI scores and for a female-positive, feminine-negative, masculine-positive model (in that order) for POI future scores. It was concluded that: 1) masculine sex role, not androgyny, is related to self-actualization, and 2) females may be going to college for more self-actualizing reasons than males.

Biological Sex, Sex-Role, and Self-Actualization of College Students

Self-actualization or self-realization is the basis for many personality theories (e.g. Goldstein, 1939; Maslow, 1954; Rank, 1941; Rogers, 1961). Self-actualization involves the ultimate development of one's abilities, regardless of external influences. For Maslow (1954; 1968), the self-actualized person is a fully functioning, psychologically healthy individual, who resists traditional and conventional classifications by transcending, fusing, or resolving dichotomies, polarities, or opposites. The dichotomies disappear altogether as they become unity. Thus, the self-actualized person is simultaneously selfish and unselfish, introverted and extraverted, active and passive, masculine and feminine, etc. (Maslow, 1954).

Shostrom (1966) created the Personal Orientation Inventory (POI) as a comprehensive measure of the values and behaviors seen to be of importance in the development of the self-actualizing person. The POI consists of 150 items which are scored for two basic general scales (which include all the items), and scored again for ten subscales. One of the subscales is labeled "synergy," which measures the ability of the individual to transcend or integrate dichotomies, including masculinity and femininity. While all the scales may be used to draw an individual profile, the general scale or combined score is used for statistical analyses, and for the best quick estimate of level of self-actualization

(Damm, 1969; Shostrom, 1966). According to Shostrom (1966), the POI provides an objective measure of the individual's mental health.

A similar connotative use of the "fully functioning psychologically healthy person" has recently been introduced by Bem (1974) with regard to sex-role attributes. Early research on sex-roles emphasized the dichotomous nature of masculinity and femininity (e.g. Gough, 1952; Guilford & Zimmerman, 1949; Terman & Miles, 1936). Spence and Helmreich (1978) noted that femininity and masculinity were viewed as bipolar opposites where the existence of one set of sex-role attributes (e.g. masculine) precluded the existence of the other set of attributes (e.g. feminine). Bem (1974), however, presented a model of psychological androgyny, stating that the fully effective and healthy functioning human has a balance or integration of both masculinity and femininity, where one is tempered by the other.

Bem (1974) devised the Bem Sex-Role Inventory (BSRI) to assess the extent to which the culture's definition of desirable female and male attributes are reflected in an individual's self-description. The inventory supplies masculine, near masculine, androgynous, near feminine, and feminine categories. The category boundaries are determined by the relative degree of masculine and feminine attributes possessed by an individual using a t-ratio for category cutoff's. The score is obtained by the following formula: [(Feminine attribute average) −(Masculine attribute average) x 2.322]. Thus, the masculine person scores relatively higher on masculine attributes than feminine attributes, and the feminine person scores relatively higher on feminine attributes than on

masculine attributes. The androgynous person, however, has a relative degree of balance of both masculine and feminine attributes. From her research, Bem (1976) noted that while masculine individuals functioned instrumentally, and feminine individuals functioned expressively, androgynous persons were both instrumental and expressive. While the masculine and feminine functional differentiation held up better for males than females, she concluded that, regardless of gender, the androgynous person displayed fully effective and healthy functioning.

It would seem then that both Maslow (1954) and Bem (1974; 1976) made a similar connotative use of the fully functioning psychologically healthy person. In fact, Constantinople (1973) stated that several personality theorists, including Maslow, implied that the healthy adult of either sex will incorporate sex-role characteristics opposite to those that are sex-role stereotyped. One would then suspect that the androgynous person, who has balanced masculine and feminine sex-role characteristics, would also be more self-actualized than those persons who are responding with a high degree of sex-ascribed traditional and conventional sex-role attributes. This hypothesis might be called the androgynous-positive hypothesis.

Jones, Chernovetz, and Hanson (1978) obtained evidence that contradicted an androgynous-positive model of human functioning. Using the BSRI to assess masculine, feminine, and androgynous persons, they found that it was the masculine subjects, independent of gender, who displayed more adaptable, flexible, unconventional, and competent patterns of responses on a number of measures, including attitudes toward women's

issues, gender identification, neurosis, introversion-extroversion, locus of control, self-esteem, problems with alcohol, creativity, political awareness, confidence in one's own ability, helplessness, and sexual maturity. They concluded that in a society that rewards masculine attributes and instrumental behavior, the masculine person is likely to build self-confidence, self-esteem, etc.

Considerable support for this notion was recently introduced by Taylor and Hall (1982) in a review of the androgyny literature. Summarizing the results of a number of studies using non-sextyped measures of psychological health, they reported that 91% of the associations were masculine-positive compared to 79% feminine-positive. They concluded that masculinity has a more potent positive effect on psychological health than femininity. They also concluded that masculinity, not androgyny, yields positive outcomes in American society. Thus, the fully effective and healthy functioning individual in this society would likely be masculine rather than androgynous or feminine. This might be called the masculine-positive model of human functioning as contrasted with the androgynous-positive model of human functioning.

The relationship between sex-roles and self-actualization has been assessed in several studies which have yielded mixed results. Cristall and Dean (1976), using a median split on POI scores, found that those subjects classified as high self-actualizers had scores on the BSRI significantly closer to zero (androgynous) than those subjects classified as low self-actualizers. Similarly, Nevill (1977), using the BSRI and

POI, found that subjects classified as androgynous scored significantly higher on seven of the twelve POI subscales than those subjects classified as non-androgynous (masculine and feminine combined). However, the "synergy" subscale was not one of the subscales showing a significant difference. While both these studies would seem to basically support the androgynous-positive model, neither study adequately tested the masculine-positive model since the investigators did not separate masculine and feminine subjects.

In addition, other investigators have reported results contrary to an androgynous-positive model. Ginn (1975) trichotomized BSRI scores and found no significant differences between masculine, androgynous, or feminine group scores on the POI. However, this may not have been a fair test of either model since the masculine category cutoff, forced by trichotomizing scores, incorporated 75 percent of Bem's androgynous category, and the androgynous category cutoff's incorporated the rest of Bem's androgynous category and most of the near feminine category.

Finally, Hogan and McWilliams (1978) reported no significant correlations between BSRI scores and POI scores. In addition, when they split BSRI scores into high and low androgynous groups, they reported that the low androgyny group scored significantly higher on the POI than the high androgyny group. This result is in the opposite direction than the androgynous-positive model would predict and again the masculine-positive model could not be assessed.

The purpose of this study was to test the androgynous-positive and the masculine-positive model predictions by comparing POI scores of all

five sex-role categories differentiated by the BSRI, i.e., masculine, near masculine, androgynous, near feminine, and feminine. It was hypothesized that if the androgynous-positive model were correct, then an inverted V-shaped or quadratic function would be found with the androgynous persons producing the highest POI scores, followed by the near-masculine and near feminine groups, with the masculine and feminine groups displaying the lowest POI scores. However, if the masculine-positive model were correct, a linear function would be found with the highest POI scores coming from the masculine persons followed by the near masculine, androgynous, near feminine, and feminine groups in that serial order-- in other words, the higher the relative masculine score, the higher the POI score.

Another purpose of this study was to assess discrepancy scores by asking subjects to mark the POI answer sheet both for how they are now and how they ideally would like to be in the future. Self-acceptance is an important ingredient for self-actualization (e.g. Goldstein, 1939; Mahoney & Hartnett, 1973; Maslow, 1968; Rogers, 1961). Assuming that self-actualizers display a high degree of self-acceptance and self-satisfaction (Maslow, 1968), it was hypothesized that the androgynous-positive model would predict the least amount of discrepancy between now-future POI scores for the androgynous group, followed by the near feminine and near masculine groups, with the greatest amount of discrepancy between now-future scores being in the feminine and masculine groups. In contrast, the masculine-positive model would predict that the masculine subjects would have the least amount of discrepancy between now and future POI scores followed by the near masculine, androgynous, near

feminine, and feminine groups in that serial order -- in short, the higher the relative masculine scores, the less the discrepancy between now and future POI scores.

A final purpose of this study was to assess the influence of biological sex on self-actualization. Several investigators have reported that females scored higher on the POI than males (e.g. Otten, 1977; Shostrom, 1974). This may be called a female-positive model of healthy human functioning. Otten (1977), finding that female college freshmen consistently scored higher on the POI than male college freshmen, concluded that females may be attending college for more self-actualizing reasons than males. If this is the case, the influence of biological sex should not only show up on POI now scores, but it also may be especially salient on the POI future scores. However, Taylor and Hall (1982), in their review of the literature, noted highly similar results for men and women on scales which measure psychological health, indicating little support for a female-positive effect.

Method

Subjects. The subjects were 129 male and 264 female volunteer college students from nine introductory psychology courses at West Texas State University. The female subjects ranged in age from 17 to 40 with a mean of 20.0, and the male subjects ranged in age from 18 to 49 with a mean age of 20.7. Debriefing took the form of individual results, when requested, and a summary of the results to each class where subjects had volunteered.

Procedure. Subjects were asked to complete the BSRI and the POI. Approximately one-half the subjects received the BSRI first and the other one-half received the POI first. The subjects were told to mark each item on the POI twice: once for how they are now, and once for how they ideally would like to be in the future. A combined scale score was then computed twice: once for the now scores, and once for the future scores.

Bem's t-ratio's (Bem, 1974) were used to classify subjects for sex-role categories. The percentage of males who were classified as masculine, near masculine, androgynous, near feminine, and feminine respectively was 31%, 17.8%, 39.5%, 5.4%, and 6.2%, and for the females the percentage was 5.7%, 7.2%, 40%, 17.8%, and 29.2% respectively. These percentages are similar to those obtained by Bem (1975) and Jones, et al. (1978), when the near masculine and masculine categories are combined and when the near feminine and feminine categories are combined, as they were in their studies.

Results

The POI scores were analyzed with a 2 (sex) x 5 (sex-role) x 2 (now-future) split plot unweighted mean analysis of variance, treating the last variable as a repeated measure (Kirk, 1968). Tukey's HSD test with harmonic means was used to compare means. The main effect of sex-role categories was significant, F (4,383) = 6.48, $p < .01$. The HSD test showed that both masculine and near masculine groups overall scored significantly higher on the POI than the feminine group (see Figure 1).

Insert Figure 1 about here

The effect of now-future was significant, F (1,383) = 25.00 $p < .01$. Future POI scores were about four points higher, on the average, than the now scores. However, as Figure 1 shows, the amount of discrepancy between now and future POI scores depends on the sex-role group designation. This effect was shown in the only significant interaction, which was the sex-role x now-future interaction, F (4,383) = 3.34, $p < .01$. In regard to the now scores, the HSD test showed that all the sex-role groups scored significantly higher on the POI than the feminine group ($p < .05$). In addition, the near masculine subjects scored significantly higher than the near feminine, and the masculine group scored significantly higher than the near feminine and androgynous groups ($p < .05$). The linear nature of this result can be seen in Figure 1. This result would seem to support a masculine-positive model rather than an androgynous-positive model.

The sex-role differences were not as dramatic with the POI future scores (Figure 1). The masculine, near masculine and near feminine groups scored significantly higher on the POI than the feminine group ($p < .05$). The masculine group also scored significantly higher on the POI than the androgynous group ($p < .05$). These results would also support a masculine-positive model for POI future scores.

Additional support for the masculine-positive model comes from comparing the now-future POI discrepancy scores. The HSD test showed that the future scores were significantly higher than the now scores for the androgynous group ($p < .05$), and the near feminine and feminine groups ($p < .01$). As noted in Figure 1, the discrepancy between the future and now POI scores

were largest for the feminine group, followed by the near feminine, androgynous, near masculine, and masculine group, in that order.

As was noted in the introduction, the BSRI sex-role category designation is based on a relative score, and thus, the masculine category BSRI scores could be higher either from the masculine trait raw scores being relatively higher than the feminine trait raw scores (masculine-positive), or from the feminine trait raw scores being relatively lower than the masculine trait raw scores (feminine-negative). In addition, the relative BSRI category score does not separate high trait scorers from low trait scorers (Jones, et al., 1978; Spence, Helmreich, & Stapp, 1975; Spence & Helmreich, 1981). For these reasons, it was decided to conduct separate Pearson product moment correlations for males and females with their raw masculine and feminine trait averages, as well as the relative trait difference scores with the POI scores. This would yield information as to whether POI scores were related to higher masculine trait raw scores (masculine-positive), lower feminine trait raw scores (feminine-negative), or the relative difference between the two (difference score). These correlations are shown in Table 1. The result would seem to support a masculine-positive effect rather than a feminine-negative one for males. For females, having a lower feminine trait raw score may also contribute to the relationships with the POI scores.

Insert Table 1 about here

In regard to biological sex, the split-plot ANOVA showed that the main effect of sex was also significant F (1,383) = 12.70, $p < .01$.

Female subjects generally scored about five points higher on the POI than the male subjects. Since none of the interactions with sex of the subject were significant, the higher scoring for females was across all sex-role groups for both now and future POI scores. This finding would support a female-positive model in addition to the masculine-positive model.

Since there was some support for the masculine-positive, feminine-negative and female-positive models of self-actualization, it was decided that a step-wise regressior would be appropriate to assess which model might be the best predictor of POI scores. The results for POI now scores and POI future scores are presented in Table 2. For POI now scores, masculine score (in a positive direction) was the best predictor, followed by sex (in the female direction), followed by feminine score (in the negative direction).

A different pattern of the variables emerged for predicting POI future scores. The best predictor was sex (in the female direction), followed by feminine score (in the negative direction), followed by masculine score (in the positive direction). It should also be noted that the amount of common variance (R^2) between the POI scores and predictor variables is small.

Insert Table 2 about here

Discussion

The results of this study seem to contradict an androgynous-positive model of fully functioning psychologically healthy human responses suggested by Bem (1974) and Maslow (1954). However, there is considerable support for the masculine-positive model of healthy human functioning (e.g., Jones, et al., 1978; Taylor & Hall, 1982), especially for present POI scores. Since self-actualization is what the POI tests (Maslow, 1971), then the greater the degree of masculine attributes manifested by the individual, be they male or female, the greater the self-actualized and self-satisfied pattern of responses. Jones and his colleagues (1978) speculated that this masculine-positive pattern of responses was probably due to a contingent relationship between the manifestation of instrumental behaviors and the application of social rewards. While self-actualization is supposed to signify the maximization of one's abilities, independent of these external influences, it is interesting to speculate whether self-actualization is contingent upon the manifestation of instrumental behaviors. In light of Spence and Helmreich's (1981) statement that the BSRI measures instrumentality (masculine attributes) and expressiveness (feminine attributes), it might be said that there is a positive relationship between instrumental behavior and self-actualization and a negative relationship between expressive behavior and self-actualization.

Females, overall, scored significantly higher on the POI than males, and female was a significant predictor of POI now scores, and the best predictor of POI future scores. This finding would lend considerable

support to Otten's (1977) contention that females may be attending college for more self-actualizing reasons than males. Perhaps attending college is an avenue through which females can acquire, maintain, or increase masculine attributes.

In summary, within sex differences in self-actualization seem to be accounted for mostly by a masculine-positive/feminine-negative model. While there is considerable support for these models, there is little or no support for an androgynous-positive model of healthy human functioning. As long as society continues to reward masculine attributes and instrumental behavior, then it will be these attributes and this behavior that relate to healthy human functioning within this society. With between-sex differences in self-actualization, however, females seem to have the advantage. Since the masculine-positive, female-positive, feminine-negative model appears to be additive rather than interactive (as indicated by the analysis of variance), then the best combination for self-actualization would be a masculine female who scores high on masculine attributes and low on feminine attributes. In the final analysis, however, it must be pointed out that the squared multiple correlations were small, indicating there is more to self-actualization than these variables alone.

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Table 1

Correlations for Male and Female Raw Masculine and Feminine BSRI Scores, the Relative BSRI Score, and POI Scores

	Males (n = 129)		Females (n = 264)	
Score	POI Now	POI Future	POI Now	POI Future
Masculine	.339**	.197*	.368**	.071
Feminine	-.056	-.090	-.165**	-.110*
Relative	-.341**	-.236**	-.407**	-.128*

* $p < .05$

** $p < .01$

Table 2

Stepwise Multiple Regression on POI Scores Using Masculine and Feminine BSRI Scores, and Biological Sex.[a]

	POI-Now			
Variable	R	F	r	Beta
Masculine	.322	44.19**	.322**	.403
Sex	.368	29.85**	.067	.259
Feminine	.409	25.40**	-.106*	-.190

	POI-Future			
Variable	R	F	r	Beta
Sex	.182	13.09**	.182**	.262
Feminine	.209	8.71**	-.035	-.123
Masculine	.238	7.58**	.038	.120

* $p < .05$

** $p < .01$

[a] Male = 1; Female = 2

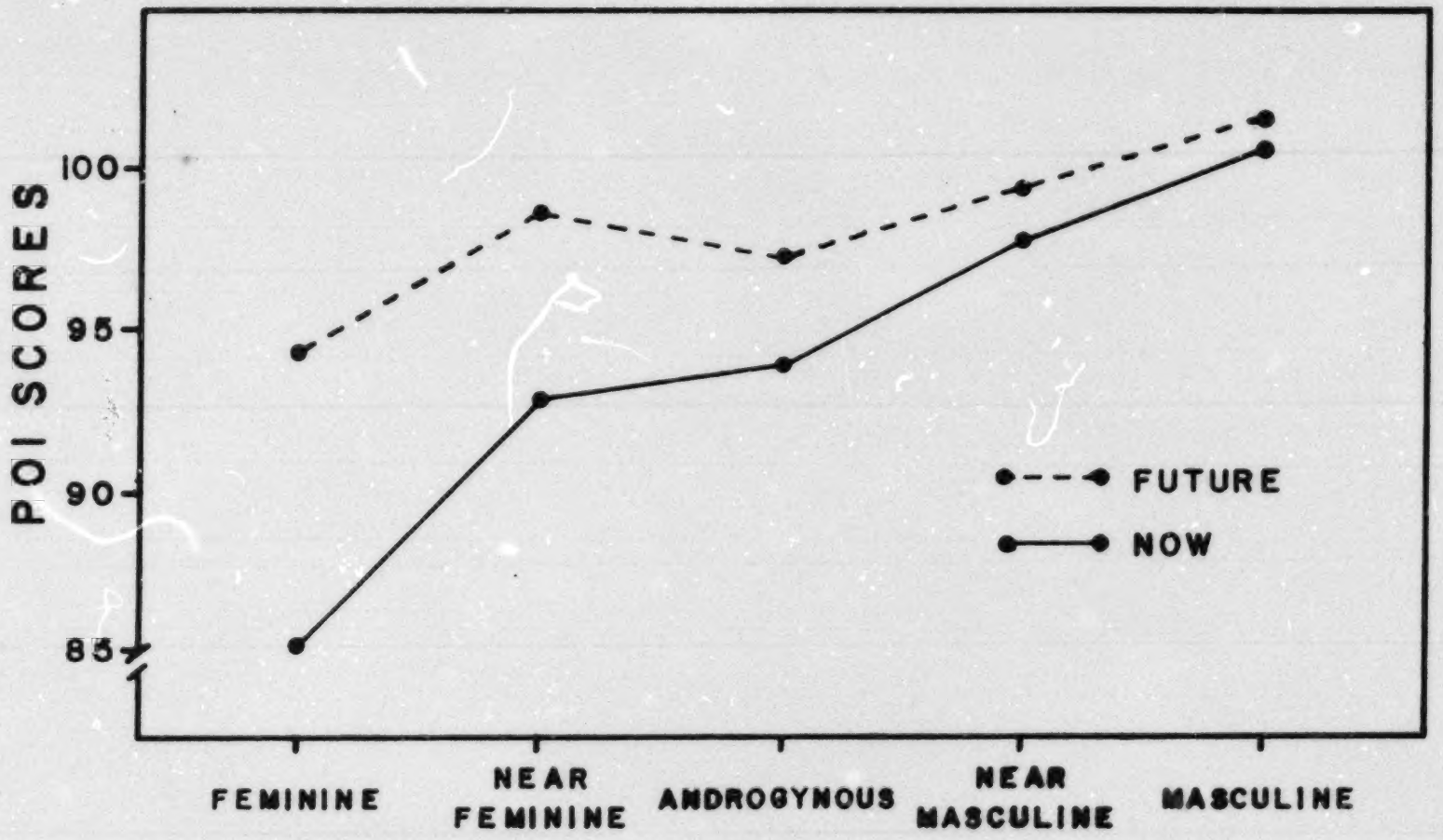
POI SCORES
100
95
90
85
FUTURE
NOW
FEMININE
NEAR FEMININE
ANDROGYNOUS
NEAR MASCULINE
MASCULINE

Figure Caption

Figure 1. Mean now and ideal-future POI scores for each sex-role category.